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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,905	12/27/2001	Seiichiro Higashi	038404.02	1688

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EXAMINER

MENGISTU, AMARE

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 04/14/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/026,905

Applicant(s)

HIGASHI, SEIICHIRO

Examiner

Amare Mengistu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 22-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 22-24,28, rejected under 35 U.S.C. 102(b) as being anticipated by **Fukuda** (5040878).

As to claims 22-24,28, **Fukuda** disclose a display device comprising: a plurality of scan lines (fig.1 (OG1...EGN)); a plurality of data lines (fig.1 (OS1...ESM)); a display matrix comprises of a plurality of pixels (col.4, lines 1-16); a first data line driving circuit connectable to at least one of the plurality of data lines through one end of the at least one of the data line (fig.1 (2A)); a second data line driving circuit connectable to at least one of the plurality of data lines through one end of the at least one of the data line (fig.1 (2B)); a first data line driving circuit including at least one element that is not included in the second data line driving circuit (fig.2A, col.4, lines 1-21, 41-65); the first and the second data line drivers having mutually different function (col.3, lines 62-67); the first data line driving circuit being a line sequential driver (see, col.4, lines 41-55).

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claim 27 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Maekawa Toshikazu (EP 0 678 848).

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 22,27-30,33 are rejected under 35 U.S.C. 102(b) as being anticipated by Usui (4,816,816).

As to claims 22,27,29,30,33, Usui clearly teaches a plurality of scan lines (fig. 1 (1.240)); a plurality of data lines (fig. 1 (1...320)); a first data line driver (fig. 2 (29)); a second data line driver (fig. 2 (31)); a first scan line driver (fig. 2 (33)); a second scan line driver (fig. 2 (35)), the first and second data lines connected to at least one of the data lines (see, figs. 1,2), a plurality of scan line disposed between the first and the second scan line drivers (see, figs. 1 and 2); the first and second data line drivers having a function of outputting a digital data signals (fig. 2 (31 and 29 outputting a digital data DB, and DA), the first data line driving circuit being a line sequential driver (see, figs. 5 and 7). It is inherent for Usui's display matrix to have a plurality of pixels at the intersection of scan lines and data lines.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 31,32,34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usui (4,816,816) in view of Youn (5,856,816) and Maekawa Toshiazu (EP 0 678,848).

In regard to claims 31,32,34 and 35; Usui discloses a first data line and a second data line driving circuit's drivers to output an analog data signals (fig.4 (24)), but has failed to teach (a) a first latch, a second latch and D/A. (b) first data lines and second data lines outputting a digital signals.

Youn is cited to teach (a) a first and a second latches (fig.5 (25a,25b)) and D/A converter (fig.5 (27)).

Therefore it would have been obvious to one skill in the art at the time of the invention was made to have used the two latches of Youn into the device of Usui because this will allow Usui's device to store the information date temporarily and outputting when the information is needed.

The patent of Toshiazu teaches that it is outputting a digital data signals, (see, col.1, lines 54- col.2, lines 6).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to use the driving an analog data signals of

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Toshiazu with the digital data driving system of Usui since this is an advantage to Usui's device to provide the ability of displaying both digital and analog data signals.

Response to Arguments

7 Applicant's arguments with respect to claims 22-35 have been considered but are moot in view of the new ground(s) of rejection.

Applicant 's argues that none of the references teach that a first and second data lines driving circuits are connectable to the at least one of the plurality of data lines through one end of the data lines. The Examiner strongly disagrees with Applicant's assertion, because all the reference clearly teaches the claimed invention.

For example, Fukuda's fig.1 (2A) is connected to end of the odd field data line and (2B) is connected to the other end of the data line.

.Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (703)305-4880. The examiner can normally be reached on M-F,T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703)305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-9600.


Amare Mengistu
Primary Examiner
Art Unit 2673

A.M
April 10, 2003